



Procedure: C-A-EMP- LEGACY
Revision: 00
Revision Date: 05/19/03

COLLIDER-ACCELERATOR DEPARTMENT

Title: Environmental Management Program for C-A Legacy Issues

Prepared by: M. Van Essendelft

Group: ESH&Q

Approvals

Signature on File Date: _____

ESH&Q Division Head

Signature on File Date: _____

Collider-Accelerator Department Chairman

(Indicate additional signatures)

Y N

☐ x FS Representative: _____ Date: _____

☐ x Radiological Control Coordinator: _____ Date: _____

☐ x Chief ME: _____ Date: _____

☐ x Chief EE: _____ Date: _____

x ☐ Environmental/P2 Coordinator: *Signature on File* Date: _____

☐ x QA Manager: _____ Date: _____

☐ x Other: _____ Date: _____

ENVIRONMENTAL MANAGEMENT PROGRAM <u>C-A Legacy Issues</u>	Completed by: <u>M. Van Essendelft</u> Date: <u>May 19, 2003</u>
1. Significant Aspects: <ul style="list-style-type: none"> • Radioactive, Hazardous, and Mixed Waste • Soil activation 	
2. Objective(s): <ul style="list-style-type: none"> • To identify, target and dispose of C-A Legacy items 	
3. Target(s): <ul style="list-style-type: none"> • Develop an action plan to address the characterization and disposition of known legacy materials within the C-A Department. • Disposition at least two legacy issues and others as funded. 	
4. Environmental Performance Indicator(s): <ul style="list-style-type: none"> • Tier I inspection results. • Number of items addressed from C-A Legacy Material List. 	
5. Program Description: <p>The Facility Review Disposition Project (FRP) and the Site Wide Material Disposition Project have identified historical and/or legacy issues in C-AD. These projects represented a comprehensive examination of all past and present operations that had the potential to impact the environment. The review included an in-depth examination of all present and past facilities that were in use during the operation of BNL under the Department of Energy. Action plans will be developed to dispose of legacy items and, as funding is appropriated, legacy items will be disposed of in an order of priority as determined by the department.</p> <p>The environmental management program is instituted to manage operations in accordance with applicable requirements, to evaluate the feasibility of pollution prevention opportunities that eliminate or reduce the future generation of these wastes, and to continually improve operations.</p> <p>The responsibility for implementing these tasks lies with the C-AD EMS Representative.</p>	

6. Potential Environmental Impact(s):

- Waste mismanagement could contaminate the environment and incur RCRA or local regulatory agency penalties.
- Not addressing environmental vulnerabilities could contaminate the environment and incur regulatory penalties.

7. Legal and Other Requirements:

The following BNL SBMS subject areas apply:

- Pollution Prevention and Waste Minimization
- Hazardous Waste Management
- Radioactive Waste Management
- Environmental Monitoring
- Storage and Transfer of Hazardous Materials
- Storage/Use of Chemicals
- PCBs
- Liquid Discharges

8. Operational Controls:

- Work Planning documentation
- C-A OPM's as appropriate

9. Budget: C-A Operating budget, and BNL funding (Legacy Project budget, UIC, and ERD budgets, FRP budget).

10. Structure, Authorities, Responsibilities

Tasks	Person Responsible	Completion Dates
Address two (2) items from C-A Legacy Material List.	C-A Environmental Coordinator	August 2003

Memo

To: EDWARD LESSARD
From: JOEL SCOT
CC: RAYMOND KAROL, MELVIN VANESSENDELFT
Date: 6/23/2003
Re: ACTION PLAN FOR LEGACY WASTE EMP

C-A Legacy Waste issues fall under two categories. The first is the Site Wide Material Disposition Project, and the second is components that have been saved for reuse over the years. With the drop in experimental support of most High Energy Physics, these components may no longer be necessary. As funding becomes available plans will be in place to remove excess items to waste. In 2003 with the extra HEP funding made available, many Site Wide Material Disposition Project items are being sent out as waste. The following is a list of components to be shipped in FY 2003:

1. Four pieces of beam separators loaded internally with legacy steel. Weight of waste 130,000 lbs.
2. Four old water tankers, weight 80,000 lbs.
3. Legacy lead. Weight 150,000 lbs. At the time of this memo, all legacy lead has been removed, shipped and buried at waste facility.
4. SREL magnets, weight 200,000 lbs.
5. 6" strong tight container with old targets and magnet.
6. 17" strong tight container with remaining targets.
7. 11 pieces of old magnet coils, weight 180,000 lbs.
8. A bin of old collimators, magnets, RF equipment etc., weight 38,000 lbs.
9. A bin of legacy steel, weight 38,000 lbs. This is the last of the Site Wide legacy steel.
10. At least one of the old neutrino horns and collimator, weight 12,000 lbs.

This would leave two (2) neutrino horns, and legacy concrete shielding block to finish the Site-Wide Material Disposition Project list for C-A. As in the proceeding years and as funding is available at the beginning of each year, final plans will be made to dispose of excess HEP waste. In FY 2004, the following list is the preliminary plan we will follow with a final plan put in place by December of 2003, which is dependent on budget resolution.

1. Set up with Waste Management to rubbilize legacy shield block, weight 200,000 lbs.

2. Package and ship remaining 2 neutrino horns. Weight 25,000 lbs.
3. Continue with 912 cleanout of old beam lines to identify wastes and long term storage components.
4. Survey High Radiation Storage areas in 912, 913, and 930 to identify components that are no longer needed. Develop a list of components, dimensions, weights, and radiation readings to allow planning for disposal.
5. Work with Cryogenics group to dispose of old deuterium storage tankers in 628, and 919.

The component lists generated in FY 2004 will form the basis for legacy waste disposal over the next several years. If funding continues at the present level for the ten years requested of HEP, then funds should allow C-A to dispose of all excess components accumulated over the last 30 years of operation. These lists do not include components in use today for RHIC or future NP experiments at AGS.